



Team Number \_\_\_\_\_

Student Name(s) \_\_\_\_\_

School Name \_\_\_\_\_

## *Answer Key*

### **DISEASE DETECTIVES**

**Georgia Elementary Science Olympiad**

**May 11, 2002**

Developed by the  
Centers for Disease Control and Prevention (CDC)

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service



**Disease Detectives**  
**Georgia Elementary Science Olympiad**  
**May 11, 2002**

**This event consists of 8 problems. Some involve visiting stations located around the room.**  
**You may visit the stations in any order. Write all answers on these pages.**

Problem 1. (2 points total) **B** Please go to Station A. For each item that you find there, name one disease caused by the item.

Item 1 (cigarette): \_\_\_\_\_  
*answers: lung CA, chronic lung disease, heart disease, vascular disease*

Item 2 (smokeless tobacco): \_\_\_\_\_  
*answers: oral / tongue cancer, poor dentition, poor oral hygiene*

Problem 2. (2 points total) **B** Please go to Station B (cellular telephone).

(a) For this item, list one serious health problem that might be caused during the use of this item.

\_\_\_\_\_  
*answers: car, motor vehicle, bicycle, boat crash, or other user-related injury*

(b) Explain how the serious health problem might result during use of this item.

\_\_\_\_\_  
\_\_\_\_\_  
*answer: use of cell phone diverts attention from task of operating vehicle*

Problem 3. (2 points)

Health department Disease Detectives helped two high schools **B** Elm School and Oak School **B** to do surveys to identify how many students have tried smoking cigarettes. The results of the survey are given in this table:

<u>school</u>	<u>total</u> <u>students</u>	<u>students</u> <u>smoking cigarettes</u>
Elm	100	50
Oak	400	100

As the chief Disease Detective, you can choose which school to visit to educate kids about the health problems related to smoking. Which school would you choose and why?

(a) school: \_\_\_\_\_

(b) reason for choosing school: \_\_\_\_\_

answer: either higher proportion (Elm) or higher number (Oak)

**Problem 4.** (3 points total) **B** Please go to Station C (hamburger meat).

(a) For this item, name one kind of agent or biologic thing that possibly present in this item that can cause sickness in humans. \_\_\_\_\_

answers: bacteria, viruses, parasites, microbial agents, fat

(b) For this item, list one health problem that might result from eating this item.

answers: vomiting, diarrhea, gastroenteritis, heart disease, obesity

(c) Give one way to prevent health problems that might result from eating this item.

answers: cook thoroughly, wash hands, don't eat until cooked, eat lean meat

**Problem 5.** (7 points total) Match the following terms: write the letter for the matching term from column B in the space for the correct word in column A. Each term in column B is used only once.

**A**

**B**

d alcohol

a. measles prevention

e surgical gloves

b. poor diet

f seat belts

c. asthma

g jogging

d. risk factor for liver disease

c smog / pollution

e. prevents hospital infections

a vaccination

f. prevents injuries in crashes

b obesity

g. promotes healthy hearts

**Problem 6.** (4 points total) **B** Please go to Station D (mosquitoes).

(a) List one human health problem or disease associated with this insect.

answers: malaria, WNV, encephalitis, yellow fever

(b) On the following lines, briefly explain how disease may result from human contact with this agent.

answers: bites, parasites, inoculation into susceptible host, vector cycle

(c) Give 2 ways to prevent health problems caused by this insect.

(1) \_\_\_\_\_  
(2) \_\_\_\_\_

answers: long sleeves, repellent, larvicide, indoors at night

**Problem 7.** (2 points) **B** Please go to Station E (fireworks).

(a) List one health problem associated with these items.

answers: burns, eye injury, finger/hand injury, hearing loss

(b) Give at least one way to prevent the health problem resulting from using this item.

answers: laws, parental control, goggles

**Problem 8.** (1 point total) **B** Please go to Station F (kleenex).

(a) Explain how this item might be used to prevent disease spread.

answers: interrupt transmission, block entry

(b) What kind of agents are prevented from causing disease because of this item.

answers: virus, bacteria

## ***End of Disease Detectives Event***

# *Station A*

Item 1

# *Station A*

## Item 2

# *Station B*



# *Station C*

# *Station D*

# *Station E*

# *Station F*